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1. Identification

1.1. Product identifier
Product Identity
Alternate Names

Corrosion Preventive Compound, Aerosol

Specification: MIL-PRF-81309H, Type III, Class 2, Grade 134a LHB Part Number: 0964---000 National Stock Number: 8030-00-546-8637 CAGE Code: 0FTT5 Contract No.: SPE8EG-16-D-0011

1.2. Relevant identified uses of the substance or mixture and uses advised against						
Intended use See Technical Data Sheet.						
Application Method	See Product Label					
1.3. Details of the supplier of the safety data sheet						
Company Name LHB Industries						
	8833 Fleischer Place					
	Berkeley, MO 63134					

Emergency 24 hour Emergency Telephone No. Customer Service: LHB Industries

(800) 633-8253 (PERS) (314) 423-4333

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Aerosol 1;H222	Extremely flammable aerosol.
Liquified Gas;H280	Contains gas under pressure; may explode if heated.
Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Asp. Tox. 1;H304	May be fatal if swallowed and enters airways.
Simple Asphyxiant	May displace oxygen and cause rapid suffocation.



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2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

May displace oxygen and cause rapid suffocation.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P321 Specific treatment (see information on this label).

P331 Do NOT induce vomiting.

P332+313 If skin irritation occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

[Storage]:

P405 Store locked up.

P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.



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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Solvent naphtha (petroleum), heavy aliph. CAS Number: 0064742-96-7	50 - 75	Asp. Tox. 1;H304	[1]
1,1,1,2-Tetrafluoroethane (HFC-134a) CAS Number: 0000811-97-2	25 - 50	Liquified Gas;H280 Simple Asphyxiant	[1]
Barium CAS Number: 0007440-39-3	1 - 5	WaterReact. 2;H261 Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance. *The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention. Do not give adrenaline, epinephrine or similar drugs following exposure to this product.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Flush exposed skin with lukewarm water (not hot), or use other means to warm skin slowly. Get medical attention if frost bitten by liquid or if irritation occurs.
Ingestion	If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
4.2. Most important sym	ptoms and effects, both acute and delayed
Overview	Liquid and gas under pressure, overheating and overpressurizing may cause gas release or rupturing of container. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Vapor reduces oxygen available for breathing and is heavier than air. Harmful if inhaled and may cause heart irregularities, unconsciousness or death. Liquid contact with eyes or skin may cause frostbite. Potential Health Effects Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. As with most liquefied gases, contact with rapidly volatizing liquid or cold vapor can cause frostbite to any tissue. High vapor concentrations

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	are irritating to the eyes and respiratory tract and may result in central nervous system effects such as headache, dizziness, anesthesia, drowsiness, and in severe exposure, loss of consciousness and death. The dense vapor of this material may reduce the available oxygen for breathing and produce symptoms such as headache, dizziness, drowsiness, cyanosis and lack of muscle control followed by collapse. Prolonged exposure to an oxygen-deficient atmosphere may be fatal. Inhalation of this material may cause an increase in the sensitivity of the heart too adrenaline, which could result in irregular or rapid heartbeats and reduced heart function. Workers with heart disease or compromised heart function should limit exposure to this material. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
	Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.
Inhalation	May be fatal if swallowed and enters airways.
Eyes	Causes serious eye irritation.
Skin	Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical, carbon dioxide, fog, foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Hydrogen fluoride, hydrogen chloride, carbon monoxide carbon dioxide and chlorine.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

5.3. Advice for fire-fighters

FIRE FIGHTING EQUIPMENT: Fire fighters should wear full protective equipment, and have self-contained breathing apparatus available.

SPECIAL PROCEDURES: Use water to cool containers exposed to a fire.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Avoid inhalation. Use good ventilation. Read entire label before using and follow all label directions. Dispose of in accordance with applicable Federal, State & Local regulations. Remove ignition sources and work with non-sparking tools. Use oil absorbent materials.

Evacuate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustion engines. Remove flames and heating elements.

7. Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Keep away from heat sparks, and open flame. Contents under pressure. Do not puncture, incinerate, or expose to temperatures above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Oxidizing Agents

Category NFPA 30B Level 2 Aerosol

Do not store where temperatures may exceed 120F (48.9C)

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

See Product Label



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8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000811-97-2	1,1,1,2-Tetrafluoroethane (HFC-134a)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007440-39-3	Barium	OSHA	No Established Limit
		ACGIH	TWA: 0.5 mg/m3
		NIOSH	No Established Limit
		Supplier	No Established Limit
0064742-96-7	Solvent naphtha (petroleum), heavy aliph.	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	AS No. Ingredient		Value		
0000811-97-2 1,1,1,2-Tetrafluoroethane (HFC-		OSHA	Select Carcinogen: No		
	134a)		Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0007440-39-3 Barium		OSHA	Select Carcinogen: No		
		NTP	Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0064742-96-7 Solvent naphtha (petroleum),		OSHA	Select Carcinogen: No		
	heavy aliph. NTP	NTP	Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		

8.2. Exposure controls

Respiratory	If personal exposure cannot be controlled to below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2. When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust that may be generated from this product, underlying paint, or the abrasive.
Fves	Lise safety diasses with side shields or chemical doddles. If exposure causes eve

Eyes Use safety glasses with side shields or chemical goggles. If exposure causes eye discomfort, use a full-face respirator.



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Skin	Wear overalls to keep skin contact to a minimum. Chemical resistant gloves may be needed for long term skin exposure.
Engineering Controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.
See section 2 for further	details [Prevention]:

9. Physical and chemical properties

Appearance	Dark brown, thick consistency Liquid/Gas
Odor	Solvent
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	
	> 142F (Aerosol Concentrate)
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Flam. Aerosol 1; H222 Extremely flammable aerosol.
Upper/lower flammability or explosive limits	Lower Explosive Limit: NA
	Upper Explosive Limit: NA
Vapor pressure (Pa)	80 psia @77F
Vapor Density	3.52 (Heavier than Air)
Specific Gravity	0.919
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
VOC Content (minus water and exempt solvents)	57.0% by wt, 661 g/L, 5.52 lbs/gal
Density	7.66 lb/gal
HAPS (lbs/gal)	0.0
HAPS (Ibs/gal of Solids)	0.0
HAPS (Ibs/Ib of Solids)	0.0
9.2. Other information	
No other relevant information.	
No other relevant information.	



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10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Do not expose to heat or store at temperature above 120°F.

10.5. Incompatible materials

Oxidizing Agents

10.6. Hazardous decomposition products

Hydrogen fluoride, hydrogen chloride, carbon monoxide carbon dioxide and chlorine.

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Solvent naphtha (petroleum), heavy aliph (64742-96-7)	2,500.00, Rat - Category: 5	No data available	No data available	No data available	No data available
1,1,1,2-Tetrafluoroethane (HFC-134a) - (811-97-2)	No data available	No data available	No data available	No data available	No data available
Barium - (7440-39-3)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).



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Classification	Category	Hazard Description
Acute toxicity (oral)		Not Applicable
Acute toxicity (dermal)		Not Applicable
Acute toxicity (inhalation)		Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization		Not Applicable
Skin sensitization		Not Applicable
Germ cell mutagenicity		Not Applicable
Carcinogenicity		Not Applicable
Reproductive toxicity		Not Applicable
STOT-single exposure		Not Applicable
STOT-repeated exposure		Not Applicable
Aspiration hazard	1	May be fatal if swallowed and enters airways.

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Solvent naphtha (petroleum), heavy aliph (64742-96-7)	Not Available	Not Available	Not Available
1,1,1,2-Tetrafluoroethane (HFC-134a) - (811-97-2)	Not Available	Not Available	Not Available
Barium - (7440-39-3)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.



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12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA		
14.1. UN number	UN1950	UN1950	UN1950		
14.2. UN proper shipping name	UN1950, Aerosols, Limited Quantity, 2.1,	Aerosols, Limited Quantity	Aerosols, Limited Quantity		
14.3. Transport hazard class(es)	DOT Hazard Class: 2.1	IMDG: 2.1 Sub Class: Not Applicable	Air Class: 2.1		
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable		
14.5. Environmental hazards					
IMDG Mai	rine Pollutant: No;				
14.6. Special precautions for user					

No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.		
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.		
WHMIS Classification	A B5 D2B		
US EPA Tier II Hazards	Fire: No		
Sudden Release of Pressure: Yes			
Reactive: No			
Immediate (Acute): Yes			

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



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EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Barium

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Barium

Pennsylvania RTK Substances (>1%):

Barium

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H261 In contact with water releases flammable gases.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

IMPORTANT NOTE: This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or any process. Final determination of suitability of any material is the sole responsibility of the user.

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